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Surveying national minorities

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Abstract:

This guide is for survey practitioners who want to collect information on national minorities. The guide addresses the main concerns with surveying national minorities, points out particularities in Switzerland, and gives some practical recommendations for survey practitioners.

Keywords:

migrants, refugees, hard-to-reach groups, special population, ethnic minority, language minority

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1. INTRODUCTION

In general population surveys, the inadequate representation of national minority populations has challenged survey researchers for decades (e.g. Bonner, 1988; Sudman & Kalton, 1986). Survey practitioners face the challenge of generating precise data from migrants, refugees, or other national minorities for several reasons. In a proportional survey design (e.g. simple random sampling), the small proportion of minorities in the general population is likely to result in sample sizes for subgroups that are too small to capture their particularities. In addition, national minorities are typically underrepresented in general population surveys due to their under-coverage in the sampling frame and/or their smaller participation rates. Furthermore, the composition of subsamples within national minorities is likely to be substantially biased (see Lipps, Laganà, Pollien, & Gianettoni, 2013). For example, participation in surveys depends on the fit between the linguistic practices of the survey and those that prevail within different groups of target respondents (for example see Salentin, 2014). As a cumulative consequence, survey indicators derived from general social surveys that involve national minorities are likely to be imbued with heightened systematic error (i.e. they will be more biased) and random error (i.e. they will be less cost-efficient, because larger sample sizes will be required to reach precise enough survey indicators). These shortcomings are not only expected for indicators describing specific minority groups, but also for any indicators describing the general population where the practices, experiences, or opinions within a minority group of substantial size differ in a non-negligible way from the population average. In a nationally diverse society like Switzerland, this will predictably be the case for most indicators of cultural diversity, social inequality, social exclusion, public health, or risk exposure. Developing methods to represent national minorities adequately in general population surveys is therefore directly relevant for reaching research goals across a very broad spectrum of studies in the social sciences.

In the following sections, we present the main methodological challenges for survey practitioners with regard to defining and sampling national minorities in general population surveys. We then briefly discuss other issues associated with surveying national minorities, as well as particular problems that arise in the Swiss context. Finally, we present several recommendations for monitoring and mitigating bias, and for obtaining reliable data in surveys including national minorities. Our understanding of these topics strongly relies on previous contributions of a working group on national minorities, which was composed of researchers from FORS and (the then) MISC programme (Methodology, Inequality and Social Change) of the University of Lausanne, and which presented findings and lessons learned in two scientific publications (Laganà, Elcheroth, Penic, Kleiner, & Fasel, 2013; Lipps et al., 2013); and one concluding position paper (Elcheroth, Fasel, Gianettoni, Kleiner, Laganà, Lipps, Penic, & Pollien, 2011). This FORS guide aims to summarise, update and supplement the work of this group.

2. DEFINING NATIONAL MINORITIES

In designing any general population survey, the crucial issues surround the exact definition of the population that needs to be studied in order to answer the research questions (see

Martin, Maehler, Behr, & Pötzschke, 2016): What are the precise boundaries of the reference population, and what are its main sources of internal heterogeneity with regard to critical indicators? Clarifying these aspects early on in a research project is essential to avoid running into systematic under-coverage or into a very sub-optimal survey design. Since national minorities are a substantial part of the general population in most countries, the definition and operationalisation of "national minorities" is crucial. To decide who counts as a "national minority" is not trivial since a person could be considered as part of a national minority based on a wide range of criteria, including: country of birth; citizenship as declared in passport(s); status of residence permit (foreign-born residents); length of stay in the host country (foreign nationals); self-declared nationality; the first language (or else the dominant language in the household); or other cultural practices seen as markers of ethnic identity (see Carletto, de Brauw, & Banerjee, 2012; Hoffmeyer-Zlotnik & Warner, 2018, 2010; Martin et al., 2016; Tourangeau, Edwards, Johnson, Wolter, & Bates, 2014). In some surveys the notion of 'migration background' is extended to the previous generation, and refers to the place of origin of respondents' parents, which can represent an important source of heterogeneity in social experiences, for example when it comes to job and career opportunities (Guarin & Rousseaux, 2017).

These different definitions are not interchangeable. For example, not all people who are foreign-born are foreign nationals, as they might be children of national-born parents. Therefore, defining the term "national minority" (e.g. first-generation migrants, second-generation migrants, refugees, etc.) as precisely as possible before a sample is drawn is of vital importance. Based on this definition people will be identified as "national minority" or not. The definition is also crucial with regard to the sampling procedure, since different information is necessary to sample the targeted population. In this way different definitions of national minorities will have consequences for the data produced, both in terms of numbers of people identified as belonging to this segment of the population and for the subsequent analyses (Anderson & Blinder, 2015).

3. SURVEYING NATIONAL MINORITIES IN SWITZERLAND

In 2017, 25% of permanent residents in Switzerland were foreigners (Permit B/C/L/F or FDFA permit; BFS, STATPOP, BEVNAT, SZENARIEN, 2018). Hence, including these national minorities in a general population survey is not a trivial matter.

Previous research in Switzerland has shown that major social surveys in Switzerland are biased against national minorities (see Lipps et al., 2013; Lipps & Kissau, 2012). The gap between all residents and residents that have a fair chance of being included in a general social survey is not random (Lipps et al., 2013). For example, nationality has been a powerful predictor of survey inclusion for the Swiss Household Panel (SHP), the Swiss Labour Force Survey (SLFS), and the European Social Survey in Switzerland (ESS). Moreover, this prediction of survey inclusion does not mean that all foreign nationalities are underrepresented in Swiss surveys (Lipps et al., 2013). There are substantial variations across different national minority groups. Nationals from the former Yugoslavia, Albania, Turkey, as well as from outside Europe are extremely underrepresented. However, there is often no substantial bias against nationals from neighbouring countries (Germany, France, Italy, Austria, and Liechtenstein, Lipps, et al., 2013), who speak one of the survey languages

as their mother tongue and share a cultural background. In this regard, language and culture are likely to play a crucial role. For example, minority bias cannot be reduced to a class effect: even when controlling for relevant social and economic factors, there is still a significant bias due to national affiliation. At the same time, there are subgroups *within* national minorities that are particularly underrepresented, such as the least educated of the non-western-Europeans (Lipps et al., 2013).

In addition, there is the possibility of mode effect. For example, in the 2013 refreshment sample of the SHP, which was drawn at random from the Swiss population register, 79% of the sampled individuals had Swiss nationality, 8% a nationality from a neighbouring country, and 13% from some other country (Lipps, 2015). The SHP used a mixed mode approach for the 2013 refreshment sample, using telephone when a landline could be matched and face-to-face otherwise. Of the individuals with a matched landline telephone, 86% were Swiss, 6% had a nationality from a neighbouring country, and 8% from some other country. This distribution was the same among the telephone-contacted individuals, while after adding face-to-face contact rates amounted to 80%, 8%, and 12%, respectively. Of the telephone respondents, 88% were Swiss, 6% had a nationality from a neighbouring country, and 6% from another country, the response rates were respectively 84%, 7%, and 9%, if both telephone and face-to-face was used. This shows that foreigners and in particular those with a more distant culture are heavily underrepresented when using the telephone mode alone, with telephone non-coverage playing the most important role. This underrepresentation was slightly mitigated with the face-to-face mode added.

In the following sections, specific issues and findings related to surveying national minorities in Switzerland will be discussed in more detail and put in perspective with the relevant international literature.

4. SAMPLING NATIONAL MINORITIES

When conducting a general population survey, researchers define the sampling design and the survey mode based on their target population (for an overview see Survey Research Center, 2016 or Tourangeau et al., 2014). One established technique for surveying national minorities is the usage of population registers. Using register data as population frame allows for a straightforward implementation of random drawing of respondents, in the framework of simple random sampling or random sampling stratified by factors that are identified in the register. It has the additional advantage that researchers have information about both respondents and non-respondents, and can hence identify certain sources of selective survey participation.

However, while population registers contain some information on socio-demographic characteristics of the individuals in the sample, they often do not contain the variables needed to identify national minorities in a straightforward way (Groenewold & Lessard-Phillips, 2012; Salentin, 2014). For example, the Swiss population register does provide information on parents' origin that would allow identifying second-generation immigrants. In such cases, it is still possible to use available information from the population registers that are known to be correlated with membership with the targeted groups. However, in this case drawing from the population register might need to be combined with other sampling

procedures, such as presented below, to obtain an adequate representation of these minority groups (see for example Antal, 2016).

In the absence of available population registers various sampling approaches have been established that retain some features of probability sampling, including random digit dialling (RDD) or random routes (for an overview see table 1). With such design, national minority groups can still be over-represented by introducing screening interviews. In these screening interviews, minority members are identified and then invited (in a higher proportion) to participate in the main survey. However, random-route sampling and RDD combined with screening interviews can be cost-intensive, especially when the share of the minority in the overall population is small (see Salentin, 2014).

Table 1. Examples of probability-based sampling methods for minorities in the absence of population registers (adapted from Reichel & Morales, 2017, table 1).

| Type of sampling | Frames of selection | Examples |
|--|--|---|
| Random digit dialling (RDD) | Telephone numbers | Carletto, de Brauw, Banerjee, 2012 |
| Random routes/walk | List of households | Hoffmeyer-Zlotnik 2003 |
| Onomastic sampling | Names/telephone book | Humpert & Schneiderheinze, 2000; Schnell et al., 2013 |
| Conventional household sampling with focused enumeration | List of households, clusters defined by selected addresses and adjacent households | Erens, 2013, p. 52-53 |
| Conventional sampling with adaptive cluster sampling | List of households, clusters of neighbouring households | Verma, 2013 |
| Time-location sampling | Place (Time) | Baio et al., 2011 |
| Capture-recapture | Place (Time) | Berry, 2007; Williams & Cheal, 2002 |
| GPS based sampling | Place (GPS) | Landry & Shen, 2005; Eckman, Humelein, & Dever, 2018; Lynn, Nandi, Parutis, & Platt, 2018 |
| Network sampling | Individual contact networks | Heckathorn, 1997; Gile & Handcock, 2010; Mouw & Verdery, 2012 |

To make probability sampling more efficient concerning surveying national minorities, some survey practitioners are drawing more sample units in geographical areas/clusters that cover the targeted minority to a greater extent than other areas (for examples see Elcheroth & Antal, 2013; Eckman et al., 2018; Lynn et al., 2018;). After these geographical areas have been identified one can conduct either screening interviews or start the main survey right away, as more sample units of the target population should be in the sample.

Although nowadays maybe uncommon, survey organisations sometimes identify potential target participants via screening of specific names in telephone books or other available sampling frames. The idea behind this so-called onomastic sampling is that certain names are typical for certain ethno-national communities. Although onomastic sampling involves a random selection of survey participants from a specific sub-frame (everyone with a name from the 'typical names list'), it represents obvious problems of mis- and under-coverage:

many members of the targeted ethno-national community will not have a typical name and some persons with a typical name will not be part of the reference population. It can therefore hardly be considered sufficient in its own to generate a relevant probability sample. When telephone books are used as sampling frames, non-usage or non-registration of landlines further adds to the problem of under-coverage (Humpert & Schneiderheinze, 2000; Schnell et al., 2013).

More sophisticated alternatives to conventional probability designs have arisen over the last two decades, which are theoretically rooted in small world and graph theories (Gile & Handcock, 2010; Mouw & Verdery, 2012). Generally referred to as network sampling or link-tracing sampling, these methods proceed by randomly drawing new target respondents among members of the contact network of those who are already in the sample. This procedure is typically repeated over several iterations. Given that in most populations social networks are structured such that from any starting point it is possible to reach any individual in the population after only a small number of iterations (the fundamental assumption of small world theory), network sampling methods become probabilistic after a few iterations whatever happened to be the procedure to select the first, or 'seed' respondents (Gile & Handcock, 2010). Every individual in the reference population will have a selection probability that is non-zero and known (it can be derived from the number of links leading to this particular individual, which can be measured as part of the survey).

Among different variants of link-tracing sampling, respondent-driven sampling (Heckathorn, 1997; Volz & Heckathorn, 2008) has risen to particular prominence, largely due to its particular ease of implementation among hidden or stigmatised populations. At the same time however, it represents a controversial application of network sampling, in particular because it does not control for the randomness of the actual selection procedure at the level of individual networks.

There are several reasons why network-sampling procedures in certain circumstances offer interesting options for effective probability sampling of national minorities. When a national minority represents a small proportion of the general population and cannot be identified in available sampling frames, it can become extremely costly to reach and (over-)sample adequately the minority group with conventional sampling methods. In this case, deriving a network sample from a purposively selected starter sample of a few minority members can represent a cost-effective alternative.

Another well-documented characteristic of many social networks – homophily, i.e. the higher likelihood to have links with socially similar others (Brändle, 2018) – implies that even small minorities can typically be (over-)sampled effectively through link-tracing procedures. Furthermore, sampling designs that integrate survey questions about network members and leave control over the selection of new respondents with the researchers/interviewers (unlike respondent-driven sampling), allows incorporation of a stratified random sampling procedure, where minority members are explicitly over-sampled on the basis of identifying information provided by previous respondents (Mouw & Verdery, 2012; Kurant, Gjoka, Butts, & Markopoulou, 2011; Elcherath & Antal, 2013).

5. FURTHER ISSUES

Previous research suggests that selection and measurement biases regarding national minorities might be mitigated by things like: the language(s) used in the survey and their fit with linguistic practices in the target groups; the procedures used to establish contact with respondents (modes and timing) and their fit with material living circumstances and habits in the target groups; the communication of survey goals and contents to respondents and its fit with social norms and values in the target groups (see Deding, Fridberg, & Jakobsen, 2008; Elcheroth et al., 2011; Feskens, Hox, Lensvelt-Mulders, & Schmeets, 2006, 2007;). With respect to this research, we briefly address below issues of survey language and measurement issues when surveying national minorities. Further, we discuss specifics of surveying national minorities concerning interviewer-assisted surveys, longitudinal surveys, and post-survey adjustments.

5.1 SURVEY LANGUAGE

In general population surveys the survey questionnaire is typically in the official administrative language(s) of the host country. However, some research has found that additional survey languages may help to recruit members from minority groups, in particular among the socially disadvantaged (Laganà et al., 2013) and that in other cases limited options for survey language remains a critical obstacle to adequate representation of national minorities. To decide whether additional survey languages are necessary, survey practitioners can consider different factors, for instance how long the targeted minority has lived in the host country, but should ideally be informed by specific knowledge about actual linguistic practices within the targeted groups (see Behr, Brzoska, & Schoua-Glusberg, 2018; Lipps & Ochsner, 2018).

5.2 MEASUREMENT ISSUES

In general population surveys questionnaires are designed for capturing characteristics of the overall population but are often calibrated best for respondents who represent the national majority in a country. Specific characteristics of national minorities, such as foreign educational qualifications, different religious groups, and their concern for or sensitivity to specific topics are not always sufficiently considered in the questionnaire design of general population studies. This can give rise to measurement issues. Consequently, survey researchers may be challenged when designing surveys for national minorities to avoid cultural or linguistic traps that might provoke item non-response, or to lead respondents to react to a different meaning than intended (Behr et al., 2018; for more information see Behr et al., 2018, ch.1; Harkness et al., 2010; Harkness, van de Vijver, & Mohler, 2003; Kleiner, Lipps, & Ferrez, 2015; Survey Research Center, 2016).

In this regard, the length of stay in the host country can indicate familiarity with the cultural context of the host country and hence the sensitivity of a question topic (for an example of how to handle sensitive questions see de Leeuw, Hox, & Keff, 2003), as well as the understanding of visual presentations, such as scales (for an elaboration see Formea et al., 2014; Kappelhof, 2015; Kappelhof & de Leeuw, 2019; Stark et al., 2018). It is generally

advisable to consider the equivalency of response options¹ between different target groups. In some cases (e.g. when asking about educational qualifications) comparisons between response options typically offered in the host country and the country of origin can provide valuable information (for recommendations of questions see Hoffmeyer-Zlotnik & Warner, 2018). In general, pre-testing survey instruments across diversified target groups – e.g. through cognitive interviews or focus group discussions - is often an essential step, especially when previous studies provide only limited evidence on the measurement equivalence of core items (Beatty & Willis, 2007; Nápoles-Springer, Santoyo-Olsson, O'Brien, & Stewart, 2006).

5.3 INTERVIEWER ASSISTED SURVEYS

For interviewer-assisted Swiss surveys, we know that more experienced interviewers are not more capable than less experienced interviewers of reducing minority bias (Laganà et al., 2013). In addition, research by Laganà et al. (2013) has shown that additional efforts to establish contact or convert reluctant respondents does not result in less minority bias. These analyses indicate that additional efforts to reach and recruit respondents using the same survey routines lead to the inclusion of more respondents of the same type. Longer contact chains and attempts to convert reluctant respondents result in (even) more minority bias, rather than less. In light of these findings, it appears essential that the investment of additional resources goes hand in hand with a critical consideration of survey routines and that important components of survey protocols as the composition of interviewer teams (with regard to their social and cultural background), interviewer training and payment schemes, are tailored in line with the aims of a survey in terms of representation of different target groups in the sample (see also Peytchev, Baxter, & Carley-Baxter, 2009).

5.4 LONGITUDINAL/PANEL SURVEYS

The underrepresentation of national minorities in first panel waves is comparable to their underrepresentation in cross-sectional surveys. The initial underrepresentation of national minorities in panel surveys then accumulates with selective panel attrition across the lifetime of a panel. In consequence, minority bias becomes even stronger in later waves of longitudinal studies (Lipps et al., 2013).

In the context of panel studies, Lipps and Ochsner (2018) show that more survey languages help to keep (socially disadvantaged) members from minority groups in the sample of longitudinal studies. Under the condition that national minorities are interviewed in their language of origin, they have the same likelihood to remain in a panel as the national majority. Consequently, practitioners of longitudinal surveys should consider offering additional survey languages.

5.5 POST-SURVEY ADJUSTMENTS

Practitioners of general population surveys that oversample national minorities in order to have higher sample sizes for national minorities need to account for unequal selection probabilities by using design weights. Although national minorities might have been oversampled, higher nonresponse from minorities may still lead to relatively low sample

¹ For more information on the comparability of educational qualifications, socio-economic status, occupation, and field of industry cross-nationally see www.surveycodings.org, retrieved September, 3rd, 2018.

sizes and bias. For these minority biases, researchers can apply post-survey stratification weights (see Gelman, 2007; Kroh, Kühne, Jacobsen, Siegert, & Siegers, 2017; Lipps et al., 2013; Sakshaug & West, 2014). However, Lipps et al. (2013) found that common weighting procedures do not result in statistical estimates that are free of minority biases. In this regard, it is of vital importance to distinguish specific categories of national minorities in the weights, since otherwise this can result in an overrepresentation of one national minority compared to another national minority (for more explanations see Dutwin & Lopez, 2014; Lipps et al., 2013). It is also important to bear in mind that post-survey adjustments will not be able to compensate for any lack of precision created by insufficient subsample sizes in minority groups, if these differ substantially from the general population average. However astute the weighting procedures, precise survey indicators can never be obtained without an adequate sampling plan and effective mitigation of selective non-response.

6. IMPLICATIONS FOR SURVEY PRACTITIONERS

In general, with respect to national minorities there is no universal strategy for making decisions about sampling procedures, survey modes and languages, or contact strategies. Hence, survey design needs adaptation to the specific context of the targeted minorities. In particular, survey researchers should be clear about which minorities should be represented and how accurately they should be represented in their sample in order to address their main research goals. Elcheroth et al. (2011) made 10 suggestions for survey designers who want to address the potential problem of minority bias in their own research (see also, e.g. Feskens et al., 2006; Groves, 2006; Peytchev et al., 2009), which are still topical today and can be summarised as follows:

Recommendation 1 – Samples including minorities should be based on reliable population registers whenever available and optimally stratified by the main cleavages that are likely to organise the distribution of relevant indicators in the target population

Recommendation 2 – Coverage and nonresponse bias should be assessed and monitored to inform survey practitioners about the efficiency of their survey design and data users about selection processes that need to be considered when interpreting findings. When post-survey adjustments are used, it is important that social categories used to derive survey weights reflect the actual sources of diversity with regard to critical respondent behaviour.

Recommendation 3 – It is important to be transparent about the part of the population that will be lost in a survey as a consequence of the actual survey languages, survey modes, and sampling procedure. Survey modes and language of first contact are often critical and need to be planned with particular care. The survey design needs to be in line with the research questions, and the interpretation of findings should refer to the concrete characteristics of the survey design used.

Recommendation 4 – To ensure adequate representation and valid data in surveys on diverse population, the sampling and questionnaire designs need to be informed by relevant knowledge of social habits and linguistic practices across all target groups. Developing survey items through adequate pre-testing in all relevant groups is generally advisable.

Recommendation 5 – In interviewer administered surveys, the role of interviewers is generally critical. The social and cultural composition of interviewer teams, as well as their training and payment scheme need to be designed in a way that is consistent with the survey objectives in terms of the population represented.

7. FURTHER READINGS AND USEFUL WEB LINKS

In general, the book by Tourangeau et al. (2014) gives a handy overview of all challenges that arise when surveying hard-to-reach populations. Some chapters put specific emphasis on national minorities (Tourangeau et al., 2014).

As designing surveys which also target national minorities is similar to designing questionnaires for cross-national surveys, we suggest literature by leading scholars in the field, such as “Survey methods in multicultural, multinational, and multiregional contexts” (Harkness et al., 2010), the “Cross-cultural survey guidelines” (Survey Research Center, 2016), the book on “Advances in comparative survey methods – Multinational, multiregional and multicultural contexts (3MC)” (Johnson, Pennell, Stoop, & Dorer, 2018), and “Surveying the Migrant Population: Consideration of Linguistic and Cultural Issues” (Behr, 2018).

Concerning surveying national minorities in Switzerland, we recommend articles by Laganà et al. (2013), Lipps et al. (2013), and Kleiner et al. (2015).

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